

REMARKS

Claims 1-32 are pending the present application. By this amendment, various sections of the specification have been amended to cure typographical errors. Due to a Restriction Requirement claims 1-9 have been elected and examined and claims 10-32 have been withdrawn from consideration. Claims 1-9 stand rejected. The Applicant respectfully requests reconsideration of the rejections for the following reasons.

Additionally this amendment is submitted in response to the Office Action of June 3, 2004, indicating that all of the rejections had not been addressed in the amendment filed on March 4, 2004.

Claims 1-9 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over *Simendinger et al.* (WO 97/21230) further in view of *Neuhalfen* (WO 96/41356) or *Shrier et al.* (WO 96/02924). The Applicant respectfully disagrees with this rejection based on the following reasons.

With respect to independent claim 1, the present Office Action asserts that *Simendinger et al.* discloses the features of this claim except for a self-supporting type voltage variable material substrate. The Office Action then alleges that formation of the VVM in the form of green film or sheets would have been obvious using calendaring or by compression molding and this would meet the limitation of self-supporting, curable substrate. Notwithstanding, in order to properly establish obviousness there must be a suggestion in the prior art, whether in the references or in the knowledge of persons of ordinary skill in the art, to suggest the desirability of the claimed features. Additionally, there must also be a reasonable expectation of success. Both of these requirements are missing in the present rejection.

First, the Office Action has not provided any meaningful suggestion or motivation to modify the teachings of *Simendinger et al.* to come up with a self-supporting VVM material substrate. The device 1 shown in Fig. 1 of *Simendinger et al.* utilizes first and second resistive elements 7 and 13. These elements 7 and 13 have different polymeric compositions. No teaching or suggestion is given in the reference or offered from knowledge known to those of ordinary skill in the art that these compositions would indeed become self-supporting by calendaring, compression molding or any other known process in the conventional heart.

Furthermore, the Office Action has failed to show that there would be a reasonable expectation of success using these methodologies with the specific compositions taught by *Simendinger* to achieve a self-supporting, curable insulative binder. Indeed, the teachings of *Simendinger* are akin to the conventional art and a problem with known VVM's is that they are not structurally freestanding. Thus, the Applicants respectfully submit that a substantive motivation to modify *Simendinger* is needed to establish a *prima facie* case of obviousness and that, further, the proposed modification of *Simendinger* does not actually provide a reasonable expectation of success.

Accordingly, the Applicant respectfully submits that the present Office Action has not established a *prima-facie* case of obviousness and requests that the rejection be withdrawn, accordingly.

With respect to dependent claims 2-9, these claims are believed to be allowable on the merits and also due to their ultimate dependency on independent claim 1, discussed above.

Claims 1-9 were also rejected under 35 U.S.C. §103(a) as being unpatentable over *Shrier et al.* (WO 96/02924) in view of *Rector et al.* (WO 00/51152). The Applicant respectfully traverses this rejection for the following reasons.

With respect to claim 1, the present Office Action asserts that *Shrier* discloses the features of this claim except for "discretely" disclosing a free, self-supporting type voltage variable material substrate. In particular, however, the Office Action asserts that "a coating of VVM material to a mesh or mat forming a coated mesh or a self supporting green film/sheet would inherently meet the limitation of self-supporting VVM substrate." The Office Action then alleges that *Rector* discloses a thin film over-voltage circuit protection device "that could be used in a surface mount configuration that could further be configured with various configurations of the electrodes," voltage variable polymeric material that contains a uniform dispersion of conductive particles in a polymeric material, and the use of solid sheets of FR-4 epoxy and polyimides substrates in the fabrication of PC boards. The Office Action concludes that it would have been obvious to form a free standing VVM by making modifications to *Shrier* "by choice of design." The Applicants respectfully disagree with these assertions for the following reasons.

First, the Office Action has not provided evidence that the element of a "self-supporting, curable insulative binder" would be inherently met by *Shrier*. In fact, the statement quoted

above from the Office Action, evinces that the VVM of *Shrier* would not be inherently self-supporting as it would require application to a mesh or mat to achieve support. Thus, by definition, it would not be "self-supporting" because, in fact, would need something other than itself to have the property of support. Furthermore, the mesh or mat is not taught or suggested as having any supporting capabilities, and this is merely an extrapolation beyond the teachings of the reference.

Additionally, no meaningful suggestion or motivation is given to modify the teachings of *Shrier* to come up with a self-supporting VVM material substrate. This reference specifically teaches the desirability of thin layers of VVM composed of polymer, glass or ceramic that are used in conjunction with a thin, neat dielectric in order to achieve desired performance characteristics (See page 6, line 24 – page 7, line 17). No teaching is given in *Shrier* of ensuring any particular structural support properties of these layers. Additionally, *Rector* does not teach that the VVM material 43, for example, is "self-supporting." Thus, the alleged "benefits" of *Rector* do not provide motivation or suggestion to arrive at the actual elements of claim 1. Accordingly, the combined teachings of the cited references simply fail to suggest (or even teach) the elements of claim 1.

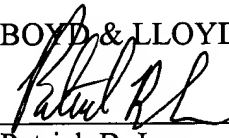
With respect to dependent claims 2-9, these claims are believed to be allowable on the merits and also due to their ultimate dependency on independent claim 1, discussed above.

In light of the forgoing comments, the Applicant respectfully submits that the application is allowable over the prior art of record and requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

BELL, BOYD & LLOYD LLC

BY


Patrick B. Law
Reg. No. 41,549
P.O. Box 1135
Chicago, Illinois 60690-1135
Phone: (312) 781-6801

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